ALASKA DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES

NEWS RELEASE



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2013 NORTON SOUND SALMON SEASON SUMMARY

Weak Chinook salmon runs occurred throughout Norton Sound in 2013 requiring inseason restrictions and early closures to southern Norton Sound subsistence fisheries. As expected in odd-numbered years, pink salmon runs were only sufficient to provide for subsistence needs and limited directed commercial fishing openings. However, substantial increases in commercial chum and coho salmon harvests occurred in 2013 and sockeye salmon abundance was sufficient to reach escapement goals and avoid an early closure to the Pilgrim River sockeye salmon fishery for the first time since 2008. Large chum salmon harvests in conjunction with high prices paid for coho salmon accounted for nearly all \$1,183,236 paid to 124 permit holders in 2013 (Figure 1). The 2013 exvessel value ranks third highest and represents the third year since 2010 in which exvessel value has exceeded one million dollars.

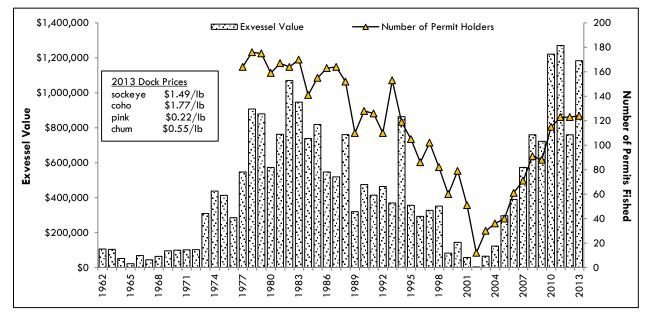


Figure 1.—Commercial salmon fishery exvessel value compared to number of permits fished, 1961-2013, Norton Sound District. *Note*: average price per pound by species is shown at the left.

CHINOOK SALMON

Major index systems for Chinook salmon in Norton Sound include the Shaktoolik and Unalakleet River drainages in Norton Sound Subdistricts 5 (Shaktoolik) and 6 (Unalakleet), respectively. Commercial Chinook salmon fisheries in Subdistricts 5 and 6 have been closed since 2005 and escapement goals have been met only half the time since being established in 1999. Another poor Chinook salmon was expected in 2013 with a combined Chinook salmon run size forecast range of 4,500−6,000 fish for both Subdistricts 5 and 6 and this forecast would not even provide for recent 10-year average harvest levels. Alaska Department of Fish and Game biologists held meetings in Shaktoolik and Unalakleet to inform residents of the forecast and survey their preference for specific management options to reduce harvests to meet escapement needs. Unalakleet subsistence users preferred a restrictive fishing schedule in the marine waters (two 24-hour periods per week with unrestricted gear) whereas Shaktoolik subsistence users preferred two 48-hour marine fishing periods per week using restricted mesh (≤6 inches). Subsistence fishing in the Shaktoolik and Unalakleet River drainages was also restricted to gillnets with a mesh size of 4 ½ inches or less and sport fishing for Chinook salmon in both Subdistricts 5 and 6 was limited to catch-and-release.

Surprisingly, pre-emptive measures, additional marine mesh-size restrictions, and eventual early closures were not sufficient to achieve escapement goals. Estimated 2013 escapements from the Unalakleet River mainstem and its major Chinook salmon tributary, North River, were 767 and 564 fish, respectively; estimated drainagewide escapement was 1,772 Chinook salmon (Figure 2). Unalakleet River drainagewide escapement was 10% below the previous record low estimate (1,965), and 64% below the long-term average drainagewide escapement (3,817). Subsistence harvests of Chinook salmon for Subdistricts 5 and 6 have not yet been estimated, but may end up being record lows based on the low escapement and major reductions in fishing opportunity.

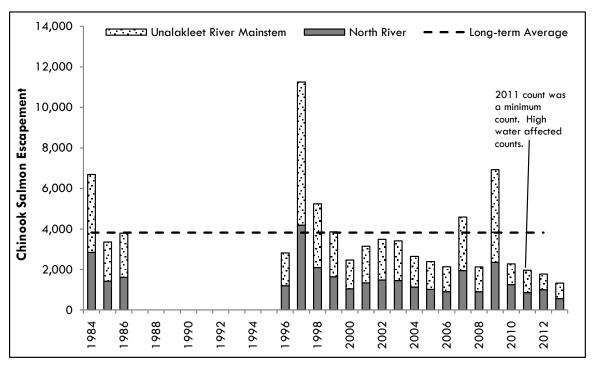


Figure 2.—Annual Chinook salmon North River and Unalakleet River mainstem escapement compared to the long-term average, 1984-1986 and 1996-2013, Unalakleet River drainage, Norton Sound.

CHUM SALMON

2013 Chum Salmon Run Outlook and Commercial Harvest Summary

The 2013 forecasted commercial chum salmon harvest range was 40,000–70,000 fish. The bulk of the commercial harvest was anticipated to originate from southern Norton Sound, which was expected to have average to above average runs of chum salmon. In contrast, below average runs of chum salmon were forecasted for northern Norton Sound Subdistricts 2 and 3, the Golovin and Elim Subdistricts. Norton Sound Subdistrict 1, the Nome Subdistrict, was also expected to have a below average to average run of chum salmon sufficient to only provide for subsistence harvests and escapement needs.

Table 1 summarizes the 2013 commercial chum salmon harvest by subdistrict compared to historical average harvests. Overall, commercial harvest of chum salmon in Norton Sound in 2013 was 118,709 fish, which ranks 18th highest in 53 years of commercial salmon harvests and is the biggest harvest since 1986. In addition, this year's harvest is 35% above the long-term average harvest of 87,304 chum salmon and accounted for approximately \$450,000 or 38% of the 2013 exvessel value. Annual commercial harvest of chum salmon has been in excess of 100,000 fish in three of the four previous years.

Table 1.—The 2013 chum salmon harvest (numbers of fish) by subdistrict compared to the recent 5-year (2008-2012) and long-term (1961-2012) historical average harvests, Norton Sound District.

Norton Sound Subdistrict	2013 Chum Salmon Harvest	Recent 4- or 5- Year Average Harvest	Long-term Average Harvest
Subdistrict 1 (Nome)		catch information confidential	
Subdistrict 2 (Golovnin Bay)	3,113	8,358	23,191
Subdistrict 3 (Elim)	1,434	10,029	17,263
Northern Norton Sound	4,547	18,387	40,454
Subdistrict 4 (Norton Bay)	36,021	4,868	4,480
Subdistrict 5 (Shaktoolik)	23,268	20,599	16,891
Subdistrict 6 (Unalakleet)	54,873	26,209	25,479
Southern Norton Sound	114,162	51,676	46,850
Norton Sound Total	118,709	70,063	87,304

Note: Long-term average harvests for Golovin, Elim, and Norton Bay Subdistricts are from 1962-2012.

The southern Norton Sound (Subdistricts 4–6) harvest (114,162 fish) accounted for 96% of the total harvest and was 144% above the long-term average southern Norton Sound harvest of 46,850 chum salmon. Strong southern Norton Sound harvests were largely the result of a record Norton Bay Subdistrict harvest of 36,021 chum salmon and the third highest Unalakleet Subdistrict harvest (54,873 fish). This year's Norton Bay harvest was 704% above the long-term average harvest of 4,480 chum salmon and the Unalakleet harvest was 109% above the long-term average harvest of 26,209 chum salmon. Shaktoolik Subdistrict harvest (23,268) ranked 14th best in 52 years of commercial harvests and was 38% above the long-term average harvest of 16,891 chum salmon. Despite the comparatively high catches of chum salmon in Subdistricts 5 and 6, surf conditions and Chinook salmon conservation concerns in Subdistricts 5 and 6 undoubtedly prevented southern Norton Sound chum salmon stocks from being more fully

utilized. Persistent inclement weather in July appears to have also diminished fishermen interest in the chum salmon fishery in Shaktoolik Subdistrict based on reports from area residents. This is supported by relatively low effort during the few chum periods not considered to have hazardous surf conditions.

Subdistricts 2 and 3 commercial harvest opportunities for chum salmon were limited to one 48-hour period and one 24-hour period. Consequently, harvests of chum salmon were well below historical average harvest levels. A total of 3,113 and 1,434 chum salmon were harvested in the Golovin and Elim Subdistricts, respectively this season (Table 1). Golovin Subdistrict commercial harvest of chum salmon was the 10th lowest in 42 years of commercial chum salmon harvests and represented only 13% of the long-term average harvest of 23,191 chum salmon. Similarly, in the Elim Subdistrict, this year's harvest was also the 10th lowest in 43 years of harvests and was a mere 8% of the long-term average harvest of 17,263 chum salmon.

An unexpectedly strong chum salmon run coupled with newly established regulations resulted in commercial chum salmon fishing being allowed in Nome Subdistrict (Subdistrict 1) for the first time in decades. The first three periods were 24 hours and permitted solely for the eastern half of the subdistrict (Cape Nome eastward to Topkok Head) as escapement goals in eastern Nome Subdistrict drainages were achieved by mid-July. However, the last two 24-hour periods allowed commercial fishing throughout the entire subdistrict from Topkok Head west to Cape Rodney in response to late surges in escapements to western Nome Subdistrict drainages. Despite the strong chum salmon run however, participation was very limited in Nome Subdistrict this season, presumably due to the novelty of this returning fishery and the late start. Consequently, Nome Subdistrict harvest statistics remain confidential and are not included in reported totals because only one permit holder fished in 2013.

Chum Salmon Escapements

Escapements of chum salmon to major Norton Sound index systems and escapement goals are shown in Table 2. Five of the eight established Norton Sound chum salmon escapement goals were achieved in 2013. One goal, the Kwiniuk River tower-based goal was clearly not achieved. The former Niukluk River tower-based goal could not be determined because the project is no longer operational. Tubutulik River's escapement goal was not evaluated because the aerial survey was not conducted during the peak spawning stage.

Nome Subdistrict ended up having its largest chum salmon escapement in over 20 years. Estimated subdistrict-wide escapement of chum salmon in 2013 was 108,023 fish, 209% above the upper bound of the subdistrict-wide biological escapement goal (BEG) range of 23,000–35,000 chum salmon (Table 2; Figure 3). Subdistrict-wide escapements of chum salmon have been within the range 85% of the time since in 2001 and the 2013 estimate represents the 8th time in 13 years in which escapement has surpassed the upper bound of range. Escapements at the Snake (2,744 chum salmon) and Nome (4,811 chum salmon) rivers also easily exceeded their respective escapement goal ranges this season. As in previous years, the larger eastern Nome Subdistrict river systems (Bonanza, Eldorado, Flambeau rivers) comprised the majority (62%) of the overall escapement (Table 2; Figure 3). However, Sinuk River had the largest estimated escapement for an individual river system contributing 31,691 chum salmon or 29% of the subdistrict-wide escapement.

Table 2.— Chum salmon expanded aerial survey, apportioned sonar-, counting tower-, weir-based escapement estimates from Norton Sound index rivers compared to established escapement goals, Norton Sound-Port Clarence Area, 2013.

Index System	2013 Escapement	Enumeration Method	Escapement Goal
Bonanza River	13,437	Expanded Aerial Survey	1
Eldorado River	26,035	Weir	SEG (6,000-9,200)
Flambeau River	27,928	Expanded Aerial Survey	
Nome River	4,811	Weir	SEG (2,900-4,300)
Pilgrim River	45,693	Weir	
Sinuk River	31,691	Expanded Aerial Survey	
Snake River	2,744	Weir	SEG (1,600-2,500)
Solomon River	1,377	Weir	
Nome Subdistrict	108,023	Combined Weir and Aerial	BEG (23,000-35,000)
Niukluk River	17,203	Aerial Survey	Tower-Based SEG (≥ 23,000)
Kwiniuk River	5,628	Tower	OEG (11,500-23,000)
Inglutalik River	55,977	Tower	
Shaktoolik River	67,272	Sonar	
North River	10,518	Tower	
Tubutulik River	4,532	Aerial Survey	OEG (9,200-18,400)
Unalakleet River	113,953	Weir	
Unalakleet & Old Woman Rivers	2,496	Aerial Survey	SEG (2,400-4,800)
Ungalik River	28,283	Aerial Survey	

^a Survey conducted early (7/9/2013) in spawning stage and not considered complete index of spawning escapement.

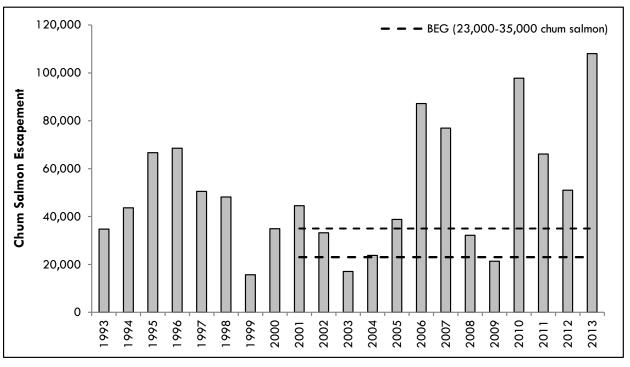


Figure 3.—Annual estimated Nome Subdistrict chum salmon escapement compared to the subdistrict-wide biological escapement goal range (23,000-35,000 chum salmon), 1993-2013, Norton Sound District.

Escapement at the Kwiniuk River tower in 2013 was 5,628 chum salmon, only slightly above the record low count of 5,577 chum salmon observed in 2012. This was the second consecutive season escapement fell well short of the optimal escapement goal (OEG) range of 11,500–23,000 chum salmon. However, escapement of chum salmon to the neighboring Tubutulik River may have narrowly met the optimal escapement goal (OEG) range of 9,200–18,400 fish based on a July 9 aerial survey of 4,532 chum salmon in the lower reach of the watershed (Table 2). To the west in the Golovin Subdistrict, the peak spawning ground aerial survey of the Niukluk River tributary of the Fish River was 17,203 chum salmon. This year's survey count suggests that actual ground-based escapement of chum salmon to the Niukluk River tower was near the former tower-based sustainable escapement goal (SEG) threshold of ≥23,000 fish.

As with harvest patterns, southern Norton Sound drainages showed comparably strong chum salmon escapements in 2013. Norton Sound's largest chum salmon producer, the Unalakleet River drainage, for example, had its second largest escapement on record. The estimated 124,471 chum salmon (based on aggregate tower and weir counts) observed in 2013 was also 94% above the 1996–2012 average drainagewide escapement of 64,121 chum salmon (Figure 4). A conservative estimate of the aggregate escapement to southern Norton Sound as indexed by the Inglutalik (55,977), Ungalik (28,283), Shaktoolik (67,272), North (10,518), and Unalakleet (113,953) rivers combined was a 276,003 chum salmon (Table 2).

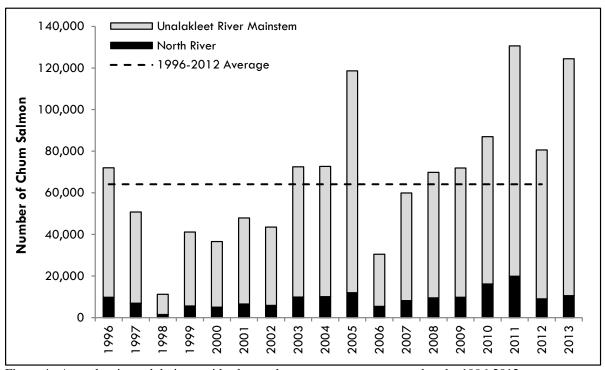


Figure 4.—Annual estimated drainagewide chum salmon escapement compared to the 1996-2012 average escapement, 1996-2013, Unalakleet River, Norton Sound.

In the Port Clarence Area, chum salmon runs were also strong in 2013. Escapement of chum salmon to the Pilgrim River was 45,693 fish, which established a new record high count for the Pilgrim River floating weir project operated by Norton Sound Economic Development Corporation (NSEDC) (Table 2). The previous record escapement was 45,361 chum salmon set back in 2006.

PINK SALMON

2013 Pink Salmon Run Outlook and Commercial Harvest Summary

Pink salmon runs have historically been large enough to support commercial harvests in the hundreds of thousands but usually only in even-numbered years. Since the early 1980s, odd-numbered year pink salmon runs to Norton Sound have been magnitudes smaller, except for the anomalously large escapements of pink salmon observed in 2005. Generally, abundance of pink salmon in odd years is sufficient to provide for escapement needs, subsistence harvests, and comparatively low commercial harvests. In most odd years, most of the pink salmon caught in the commercial fishery supports a local bait market for Norton Sound halibut and crab fisheries.

In 2013, an average odd-year pink salmon harvest was forecasted with an estimated commercial harvest outlook of 50,000–100,000 pink salmon. Actual run abundance of most pink salmon stocks in Norton Sound ended up being below average in 2013, that somewhat contributed to diminished commercial effort directed at pink salmon. There was a single 48-hour directed pink salmon opening in the Golovin Subdistrict. Reduced commercial effort on pink salmon was also the result of a lack of buyer interest in southern Norton Sound, where pink salmon were locally abundant, as well as chum salmon conservation concerns in Subdistricts 2 and 3 which delayed the onset of pink salmon fishing. Consequently, the bulk of the 2013 commercial pink salmon harvest was incidental to the directed chum salmon fishery.

Table 3 summarizes commercial pink salmon harvests by subdistrict compared to historical average harvest levels for odd-numbered years. Overall Norton Sound pink salmon harvest was 8,338 fish. This year's harvest represented only 20% of the long-term average harvest of 42,179 pink salmon and ranked 13th in 26 years of odd-year harvests. Golovin Subdistrict harvest of pink salmon was 1,180 fish, which was 82% below the long-term odd-year average of 8,591 pink salmon; the 2013 Golovin harvest also ranked 15th in 26 odd-numbered year harvests. Similary, the 601 pink salmon harvested in Elim Subdistrict was 88% below the long-term average harvest of 5,197 pink salmon. As with other species, southern Norton Sound accounted for the majority (79%) of the overall harvest in 2013.

Table 3.—The 2013 pink salmon harvest (numbers of fish) by subdistrict compared to long-term (1963-2011) historical odd-year average harvests, Norton Sound District.

Norton Sound Subdistrict	2013 Pink Salmon Harvest	Long-term (1963-2011) Odd-Year Harvest	Odd Year Rank	
Subdistrict 1 (Nome)		catch information confidential		
Subdistrict 2 (Golovin) Subdistrict 3 (Elim)	1,180 601	8,591 5,197	15 12	
Northern Norton Sound	1,781	13,788	15	
Subdistrict 4 (Norton Bay) Subdistrict 5 (Shaktoolik) Subdistrict 6 (Unalakleet)	487 14 6,056	4,511 9,534 16,385	15 15 13	
Southern Norton Sound	6,557	30,430	15	
Norton Sound Total	8,338	44,218	13	

Pink Salmon Escapements in 2012

In 2013, complete pink salmon escapement estimates were successfully obtained from all eight rivers with ground-based escapement projects and three other systems were successfully aerial surveyed to index escapement of pink salmon (Table 4). All established pink salmon escapement goal thresholds or ranges were easily exceeded. However, pink salmon escapements were below historical odd-year average levels for most river systems, with the exception of the Inglutalik River tower. Moreover, the characteristic lower odd-year abundance pattern of pink salmon was also not observed at Inglutalik River. The estimated 208,347 pink salmon enumerated this season was 131% above the 2012 estimate of 90,349. This is the second occurrence of an odd-year estimate being much larger than the even year estimate; the 2011 count of 494,101 pink salmon was 447% greater than the 2012 estimate.

Table 4.—Pink salmon aerial survey-, apportioned sonar-, counting tower-, and weir-based escapement estimates from Norton Sound index rivers compared to odd-year average and established escapement goals, Norton Sound-Port Clarence Area, 2013.

Index System	2013 Escapement	Enumeration Method	Odd-Year Average	Escapement Goal
Eldorado River	1,020	Weir	2,272	_
Inglutalik River	208,347	Tower	NA	
Kwiniuk River	13,212	Tower	76,859	SEG (≥ 8,400)
Niukluk River	9,700	Aerial Survey	NA	Tower-Based SEG (≥10,500)
Nome River	10,257	Weir	11,903	Odd-Year SEG (\geq 3,200)
North River	46,668	Tower	196,712	SEG (≥ 25,000)
Pilgrim River	1,078	Weir	6,956	
Shaktoolik River	160,953	Sonar	NA	
Sinuk River	23,000	Aerial Survey	NA	
Snake River	1,333	Weir	3,055	
Solomon River	2,706	Weir	NA	
Unalakleet River	143,921	Weir	NA	
Ungalik River	49,890	Aerial Survey	NA	

2013 COHO SALMON RUN

2013 Coho Salmon Run Outlook and Commercial Harvest Summary

The 2013 coho salmon run was forecasted to be below average to average with an anticipated harvest range of 30,000 to 60,000 fish. As in previous years, the majority of coho salmon harvests were expected to emanate from Subdistricts 5 and 6 because of relatively large runs compared to coho salmon runs in northern Norton Sound. Northern Norton Sound has only accounted for 4–25% of the Norton Sound coho salmon harvest since commercial coho salmon fishing returned to the Elim Subdistrict in 2007.

Coho salmon have been harvested for commercial purposes since the inception of commercial fishing in Norton Sound in 1961. However, low coho salmon harvests characterized the fishery from 1961–1978. Coho salmon fisheries were prosecuted more aggressively beginning with the 1979 season with increasing runs and improved market interest and have been important to the local

economy ever since. From 1979–2003, the average commercial coho salmon harvest was 44,394 fish and harvests ranged from a low of 1,759 fish in 2002 to a high of 105,418 fish in 1992 (Figure 5). The 2004–2009 seasons represent a period of record coho salmon productivity for most areas except for Subdistrict 2, which had back to back below average years in 2004 and 2005. During this period, commercial coho salmon harvests averaged 98,639 fish, which is largely bolstered by the three largest coho salmon harvests on record (2006–2008), including a record 130,808 coho salmon caught in 2006 (Figure 5). Productivity of coho salmon returned to near pre-2004 levels beginning in 2010 with harvests averaging 52,684 coho salmon during the most recent three-year period (Figure 5).

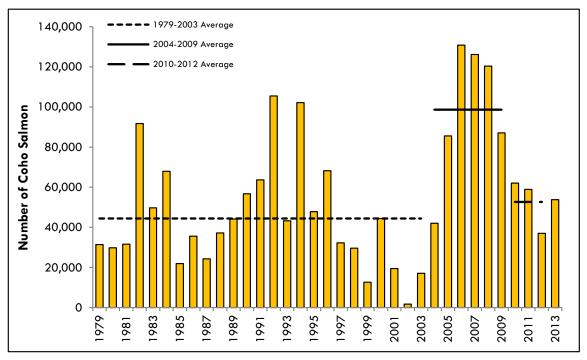


Figure 5.—Annual commercial coho salmon harvest (numbers of fish) compared to 1979-2003, 2004-2009, and 2010-2012 average harvests, Norton Sound District, 1979-2013.

Norton Sound commercial coho salmon harvest statistics for the 2013 season are shown in Table 5. The 2013 overall commercial coho salmon harvest in Norton Sound was 53,802 fish, which ranked 15th best in 53 years of harvests. The 2013 overall harvest represented a 45% increase from the 2012 harvest of 37,056 coho salmon and was 94% of the 1979–2012 average of 57,274 coho salmon (Table 5). However, this year's harvest was 26% below the recent 5-year (2008–2012) average harvest of 72,982 coho salmon. Northern Norton Sound Subdistricts 2 and 3 comprised 22% of the overall Norton Sound harvest; Golovin (5,362 fish) and Elim (6,675 fish) Subdistrict harvests were second and fourth best on record since 1962, respectively. In southern Norton Sound, coho salmon harvest was record setting for the second time in three years in Norton Bay Subdistrict as 5,485 coho salmon were harvested. In contrast, Shaktoolik Subdistrict coho salmon harvest declined for the third consecutive year and the 6,890 coho salmon taken in 2013 represents a 39% decline from the 1979–2012 average harvest of 11,386 coho salmon. Shaktoolik permit holders had to contend with relatively severe local surf conditions this August, which may in part explain why Shaktoolik harvests declined this season despite coho salmon harvests increasing elsewhere throughout Norton Sound. Unalakleet Subdistrict harvest was

29,390 coho salmon, and ranked 20th best in 53 years of harvest; it also represented a 32% increase from the 2012 harvest of 22,274. Unalakleet Subdistrict harvest was below the historical 1979–2012 average harvest of 38,905 coho salmon. Southern Norton Sound harvest (41,765 fish) ranked 19th best in 53 years of harvests.

Table 5.—The 2013 coho salmon harvest (numbers of fish) by subdistrict compared to 1979-2012 average and 2008-2012 average harvests, Norton Sound District.

Norton	2013	2008-2012	1979-2012	
Sound	Coho Salmon	Average	Average	
Subdistrict	Harvest	Harvest	Harvest	Rank
Subdistrict 1 (Nome)	catch information confidential			_
Subdistrict 2 (Golovnin Bay)	5,362	1,945	1,448	2
Subdistrict 3 (Elim)	6,675	6,841	3,788	4
Northern Norton Sound	12,037	8,786	5,236	2
Subdistrict 4 (Norton Bay)	5,485	2,627	1,747	1
Subdistrict 5 (Shaktoolik)	6,890	17,150	11,386	22
Subdistrict 6 (Unalakleet)	29,390	44,419	38,905	20
Southern Norton Sound	41,765	64,196	52,038	19
Norton Sound Total	53,802	72,982	57,274	15

2013 Coho Salmon Escapements

Reliable and complete estimates of coho salmon escapement were obtained from all ground-based escapement projects in 2013. However, aerial surveys were not conducted for several index streams because of marginal weather and limited access to available aircraft. For the Niukluk River, the aerial survey count of 2,353 coho salmon suggests that the tower-based SEG range would have been met had the department been able to conduct the project (Table 6). Similarly, for the Kwiniuk and North rivers, 2013 tower-based counts of 3,714 and 8,834 coho salmon indicate that aerial survey SEGs would have been reached had surveys been flown under good viewing conditions. Escapements of coho salmon at most ground-based projects were below historical average levels. However, it is important to note that these averages include record counts from the mid-2000s that have a significant effect on the average. The only exception to this pattern was the Pilgrim River weir project which had a 2013 count of 884 coho salmon which was 61% above the historical average of 550 coho salmon (Table 6).

Table 6.—Coho salmon aerial survey-, apportioned sonar-, counting tower-, and weir-based escapement estimates from Norton Sound index rivers compared to historical averages and established escapement goals, Norton Sound-Port Clarence Area, 2013.

Index System	2013 Escapement	Enumeration Method	Historical Average	Escapement Goal
Kwiniuk River	3,714	Tower	9,811	Aerial Survey SEG (650-1,300)
Niukluk River	2,353	Aerial Survey	NA	Tower-Based SEG (2,400-7,200)
Nome River	2,624	Weir	3,373	
North River	8,834	Tower	11,865	Aerial Survey SEG (550-1,100)
Pilgrim River	884	Weir	550	
Shaktoolik River	27,207	Sonar	NA	
Snake River	1,203	Weir	1,823	

2013 SOCKEYE SALMON RUN

Norton Sound-Port Clarence Area Sockeye Salmon Stocks

Glacial Lake, in the northwestern portion of the Nome Subdistrict, and Salmon Lake which empties into the Pilgrim River in the Port Clarence District, support the northernmost sockeye salmon populations of significant size in North America. In 2007, the board re-established by regulation a Port Clarence District commercial salmon fishery. The board also established an inriver run goal of $\geq 30,000$ sockeye salmon for the Pilgrim River as a threshold for allowing a commercial fishery. The inriver run goal assumes approximately 20,000 sockeye salmon are needed for escapement and 10,000 sockeye salmon are needed to meet Pilgrim River subsistence harvest needs.

2013 Sockeye Salmon Run Outlook and Fishery Summary

A commercial fishery for sockeye salmon was not expected to occur in the Port Clarence District, and the department was anticipating the 2013 run to be similar to the 2011 and 2012 runs. It was hoped that sockeye salmon run abundance would be sufficient to avoid Pilgrim River subsistence net-fishing restrictions. Surprisingly, for the first time since 2008, not only was abundance of sockeye salmon sufficient to avoid restrictions, an improved run allowed for a doubling of the Pilgrim River subsistence sockeye salmon catch limit from 25 to 50 per household. Preliminary subsistence harvest based on a record-high 265 permits issued for the Pilgrim River is 2,765 sockeyes which is the highest subsistence harvest reported since the 2008 season when 3,495 sockeyes were harvested (Figure 6). Sockeye salmon subsistence harvest data for the Nome Subdistrict and Port Clarence District are not available at the time of this writing because permits are not due until later in order to fully capture coho and fall chum salmon harvests.

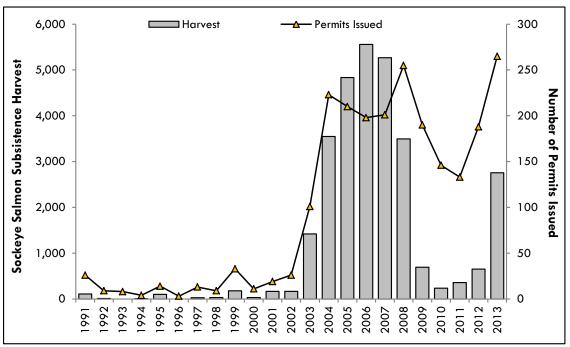


Figure 6.– Annual subsistence salmon harvest compared to number of permits issued, Pilgrim River, Port Clarence, 1991-2013.

2013 Sockeye Salmon Escapements

In 2013, an estimated 2,544 sockeye salmon were enumerated at Glacial Lake weir and 12,130 sockeye salmon were enumerated at the Pilgrim River weir (Figure 7). The 2013 Glacial Lake weir count was a 55% increase from the 1,636 sockeyes counted in 2012. Similarly, the 2013 Pilgrim weir count represents a 70% increase from the 2012 weir count of 7,117 sockeye salmon (Figure 7). An August 13 aerial survey count of 6,027 sockeye salmon was greater than the 5,830 and 5,144 sockeye salmon observed during the 2011 and 2012 aerial surveys, respectively. The 2013 season signifies the third consecutive season in which the Grand Central River/Salmon Lake aerial survey SEG range of 4,000–8,000 has been achieved. A total of 996 sockeye salmon were also observed at Glacial Lake, making 2013 the first season since 2010 that the Glacial Lake aerial survey SEG range (800–1600 sockeye salmon) has been evaluated and achieved.

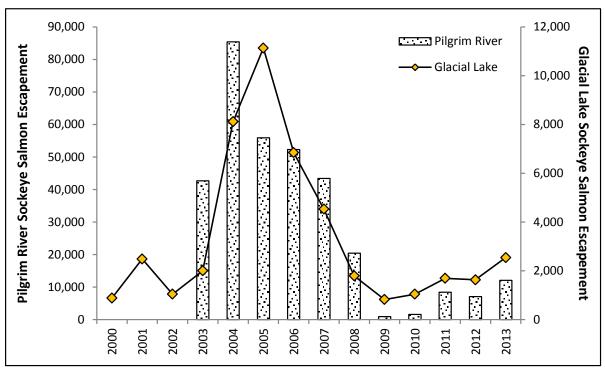


Figure 7.—Annual sockeye salmon escapement at Glacial Lake (2000-2013) and the Pilgrim River (2003-2013) weirs, Norton Sound-Port Clarence Area.

ACKNOWLEDGEMENTS

Norton Sound-Port Clarence Area ADF&G staff would like to thank the many ADF&G and NSEDC technicians and biologists that worked on salmon stock assessment projects during 2013. As in previous years, NSEDC operated several important enumeration projects used for management of salmon fisheries and provided technicians to work at ADF&G-operated salmon escapement projects.